

**REMARKS**

Applicant respectfully requests reconsideration of the present application.

**I. Disposition of the claims.**

Claims 16-30 are pending.

The non-entered Amendment after final filed January 17, 2007, is repeated in the present response. Claim 16 has been amended to include the recitations of previous claim 19, which is now canceled. Claim 30 is new and supported, e.g., in reference examples 1-3 ((a) corresponds to Reference Example 2; (b)(1) corresponds to Reference Example 1; and (b)(2) corresponds to Reference Example 3.). Now new matter has been added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate status identifier.

**II. Claim Rejections Under 35 USC 112**

Claim 16 was rejected for being indefinite. Claim 16 now includes the recitations from claim 19, which was not rejected for being indefinite. Therefore, the rejection to claim 16 has been rendered moot, as agreed in the Advisory Action. This rejection should be withdrawn.

**III. Claim Rejections Double Patenting**

Applicants request that the Examiner hold in abeyance the provisional judicially created obviousness-type double patenting (ODP) rejection over specified claims in U.S. Application No. 10/498,215, which has not yet been examined on the merits. When a provisional obviousness-type double patenting rejection is the only rejection remaining, the Examiner should withdraw the rejection and allow the application to issue as a patent.

**IV. Claim Rejections Under 35 USC 103(a)**

Claims 16-29 are rejected under 35 USC 103(a) as being obvious over Okada et (US Patent No. 6,113,943) in view of Hutchinson (US Patent No. 5,889,110). The Examiner maintains that there is a prima facie case of obviousness. Advisory action, p. 2. Applicants traverse this rejection for the following reasons, because, in addition to the position stated in

the record, the rejection has not considered the secondary considerations, including the experimental examples.

It is noted that the present claim 16 now recites: *so that blood concentration of the GnRH agonist within one week after administration is about 2 ng/mL or higher.*

The present examples show that the present invention makes it possible for a preparation to have an increased amount of drug release at an early stage of administration and to exhibit stable sustained-release over a long term. Figures 1-3 and the Experimental Examples 1-3 {p. 83-et seq.} demonstrate this effect and compare the results with MC#2 (microcapsule formulation #2 {pp. 74-74, Reference Example 2}). Along these lines, the Examiner's attention is directed to claim 30.

It is respectfully submitted that there is no showing of a blood concentration pattern in Hutchinson, which merely presumes a releasing "term" based on a pharmacological effect and does not refer to a blood concentration pattern or a release pattern. For example, Hutchinson teaches the following:

as described in Example 16. Following dosing, the animals were found to enter a period of continuous diestrus indicating continuous release of goserelin. The average duration of the diestrus period for each group of rats is given in the following table. From this table it can be seen that all three formulations gave periods of goserelin release in excess of fourteen weeks.

Formulation No.	Average duration of diestrus (days) (± s.e.)
1	104 (± 5.4)
2	95 (± 3.9)
3	102 (± 2.8)

#### Biological Evaluation

Formulations 1-3 were dosed to groups (n=10) of regularly cycling female rats at a dose of 3.6 mg goserelin per rat,

It can further be seen from these examples that the formulations of the goserelin polyester salt can be provided as solutions which can be readily administered parentally using a narrow gauge needle, and that such formulations are convenient for the treatment of hormone dependent tumours in man.

Cols. 37-38,

## Biological Evaluation

Formulations 1-4 were dosed to groups (n=9 or 10) of regularly cycling female rats at a dose of 3.6 mg goserelin per rat, as described in Example 16. Following dosing, the animals were found to enter a period of continuous dioestrus indicating continuous release of goserelin. The average duration of the dioestrus period for each group of rats is given in the following table. From this table it can be seen that all three formulations gave periods of goserelin release for a period of about 3 months or more.

Formulation No.	Average duration of dioestrus (days) (x.s.e.)
1	114 ± 1.8
2	94 ± 4.6
3	97 ± 5.3
4	93 ± 4.3

It can further be seen from these examples that the formulations of the drug polyester salt can be provided as solutions which can be readily administered parentally using a narrow gauge needle, and that such formulations are convenient for treatment of hormone dependent tumours in man.

Col. 39. None of these examples concerns blood concentrations.

Furthermore, Hutchinson teaches the following:

## Biological Evaluation

Two groups of ten female rats were dosed subcutaneously using a 20 gauge needle with formulations 1 and 2 at a dose of 3.6 mg per rat. Terminal blood samples were taken from the rats at subsequent timepoints (1 week (n=4), 4 weeks and 6 weeks (n=3)). The blood samples were assayed for goserelin by means of radioimmunoassay. Measurable blood levels of goserelin were found with both formulations, indicating that the solution formulations gave sustained drug release for several weeks. The blood level profile of formulation 1 was found to peak at about four weeks, whereas with formulation 2 the peak occurred at week one and thereafter the blood levels were found to decline progressively with time. The blood level profile of formulation 1 is considered to be more desirable than that of formulation 2 due to the more constant blood levels obtained when benzyl benzoate is used as the solvent for the solution formulation.

It can further be seen from these examples that the formulations of the drug polyester salt can be provided as solutions which can be readily administered parentally using a narrow gauge needle, and that such formulations are convenient for treatment of hormone dependent tumours in man.

Col. 40.

## Biological Evaluation

This solution formulation of goserelin was dosed subcutaneously using a 20 gauge needle into each of 45 female rats (220  $\mu$ l, equivalent to 7.2 mg goserelin). Groups of five rats were terminated and blood samples taken at 1 and 4 days, and 1, 3, 5, 7, 9, 11 and 13 weeks. In addition blood samples were taken from the tail vein of groups of five rats at 2, 4, 6, 8, 10 and 12 weeks. The samples were analysed

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for goserelin by means of radioimmunoassay, and the results show that this liquid formulation of goserelin-polyester salt gave measurable blood levels of drug for about 11 weeks after dosing and shows that the formulation gives sustained release of goserelin in vivo.

It can further be seen from these examples that the formulations of the drug polyester salt can be provided as solutions which can be readily administered parentally using a narrow gauge needle, and that such formulations would be convenient for treatment of hormone dependent tumours in man.

Cols. 40-41. Although each of these examples concerns blood concentrations, neither contains meaningful data from which to form a prediction, regardless of whether or not Okada teaches blood concentrations.

In view of the record as a whole, it is respectfully requested that the rejections to the present invention be withdrawn.

**Conclusion**


It is believed that the present application is in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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